at1121exam_practice: Radicals and Squares (v1)

Question 1

Simplify the radical expressions.

$$\sqrt{28} \qquad\qquad \sqrt{12} \qquad\qquad \sqrt{45}$$

Question 2

Find all solutions to the equation below:

$$10\left((x+8)^2 - 7\right) \;=\; 90$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 - 6x \ = \ 40$$

Question 4

A quadratic polynomial function is shown below in standard form.

$$y \ = \ 2x^2 - 12x + 9$$

Express the function in **vertex form** and identify the **location** of the vertex.